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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,789	01/31/2006	Jean Armiroli	658560089	7731

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EXAMINER	
SCHNEIDER, CRAIG M	

ART UNIT	PAPER NUMBER
3753	

MAIL DATE	DELIVERY MODE
04/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,789	ARMIROLI ET AL.	
	Examiner	Art Unit	
	CRAIG M. SCHNEIDER	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 January 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/31/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The Non Patent Literature document for the Delphion English Abstract for DE 196 32 368 on the IDS submitted 1/31/06 was not considered because the abstract was not in English as noted.

Drawings

2. The originally filed application is missing pages 2 and 4 of the drawings. Appropriate correction is required.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the generally frusto-conical spring mating surface of claim 24 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "28" has been used to designate both the ball on page 7, line 5 and in the Figures and the bore on page 7, line 8.

5. The drawings are objected to because in Figure 4 36 is indicated as a conduit but it is unclear as to how the conduit and the routes 38 and 38' communicate. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 34'.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 33 in Figure 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

8. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in

upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

9. The disclosure is objected to because of the following informalities:

On page 6, line 6 "outlet of the pump" should be --inlet of the pump--.

On page 6, line 11 "discharge rate control valve" should be --solenoid valve--.

Appropriate correction is required.

Claim Objections

10. Claim 25 is objected to because "proportion" should be --portion--.

Claims 26 and 27 are objected to because of the following informalities: the claims are identical.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 15-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language "above about" in lines 11 and 13 of claim 15 and in lines 13 and 15 of claim 28 is indefinite because it is unclear as to if the pressure is above or about.

13. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The flap device is in the same position when the valve device is in the first and second configuration. The difference between the two configurations is the opening pressure required to open the flap device. The claim is indefinite because both the first and second positions are the same.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 15-23 and 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Krüger et al. (WO98/45594).

Krüger et al. disclose a delivery system for a fluid which may be used to attain a desired pressure and discharge rate of the fluid, the system comprising a control valve (10) having a valve body having an inner bore (70) generally defined by a bore axis, a valve inlet (35), and a valve outlet (36); a spool member (53) at least partially interposed within the inner bore and moveable therein generally along the bore axis; a biasing member (17 and 60) for biasing the spool member within the inner bore; a force exerting portion (72) for axially moving the spool member within the inner bore; and a flap device (51 and 50) including a flap inlet (38) defined by a inlet flap outer conduit and an inlet flap inner conduit, wherein the biasing member, in a first valve configuration as depicted in Figure 5, permits the flap device to open when pressure within the inlet flap outer conduit is above about a first pressure, an the biasing member, in a second valve configuration (which would correspond to moving the valve downwards in Figure 5), permits the flap device to open when pressure within the inlet flap outer conduit is above about a second pressure, wherein the spool member, in a third valve configuration, directs the flow of a fluid from the valve inlet to the valve outlet; and a fluid pump (1) having a pump inlet (23) and a pump outlet (26), wherein the pump inlet is in fluid communication with the valve outlet.

Regarding claim 16, wherein the flap inlet is generally defined by a flap axis, and the flap axis is generally co-axial with the bore axis as can be seen in Figure 5.

Regarding claims 17, the claim is clearly anticipated by Krüger et al.

Regarding claim 18, wherein the electromagnet current is about 0 amps when the valve is in the first valve configuration (the unenergized state as seen in Figure 5.

Regarding claim 19, wherein the electromagnet current is between about 0 amps and a threshold value when the valve is in the second valve configuration (this occurs when the magnet is moved from the rest position).

Regarding claims 20 and 21, the claims are clearly anticipated by Krüger et al.

Regarding claim 22, wherein the inlet flap inner conduit is in fluid communication with the valve inlet (38 to 48 past 50 and 49 into 70 and out 41 and 37 which leads to 27 then 11 and back to the valve inlet through 24).

Regarding claim 23, wherein the flap device includes a seat (49) surrounding a flap orifice that defines a boundary between the inlet flap outer conduit and the inlet flap inner conduit, and a ball (50) that selectively contacts the seat to prevent the movement of fluids through the seat.

Regarding claim 29, the system further comprising a pressure sensor (9) for detecting the pressure of the fluid within a portion of the delivery system downstream of the pump.

Regarding claim 30, the system further comprising a control unit (6), wherein the control unit supplies power to the force exerting portion in response to a preselected pressure detected by the pressure sensor.

Regarding claims 31 and 32, the claims are clearly anticipated by Krüger et al.

Regarding claim 33, wherein the pump outlet is in direct fluid communication with the inlet flap inner conduit such that the flap device may regulate the pressure output of the pump within a portion of the delivery system as can be seen in Figure 1.

Regarding claim 34, the claim is clearly anticipated by Krüger et al.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krüger et al. in view of Hervault et al. (WO2004/007950 A2).

Krüger et al. disclose wherein the flap device further includes a sleeve (51) at least partially interposed between the biasing member (17 and 60) and the ball (50), wherein the sleeve includes a ball contacting portion (52). The sleeve does not disclose a generally frusto-conical spring mating surface. Hervault et al. disclose a spring mating surface (area above 108 that projects upward and the spring 107 encircles the area) that is generally frusto-conical in shape.

It would have been obvious to one having ordinary skill in the art at the time the invention was made top utilize the mating surface of Hervault et al. with the spring contact surface of Krüger et al., to secure the spring onto the top surface of the sleeve.

18. Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krüger et al. in view of Good et al. (3,193,250).

Krüger et al. disclose all the features of the claimed invention except that the flap device is axially adjustable relative to the inner bore such that a biasing force exerted by the biasing member on a portion of the flap device may be adjusted. Good et al.

disclose a axially adjustable closure member (32) such that the closing force exerted by the biasing member may be adjusted (col. 2, lines 45-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the adjustable valve seat of Good et al. onto the flap device of Krüger et al., in order to improve the lifetime seating characteristics (col. 1, lines 9-12).

Regarding claims 26 and 27, the claims are clearly obvious in view of the combination of Krüger et al. and Good et al.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hervault et al. (7,270,113) is the US case of WO 2004/007950.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRAIG M. SCHNEIDER whose telephone number is (571)272-3607. The examiner can normally be reached on M-F 8:30 -5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. M. S./
Examiner, Art Unit 3753
March 19, 2008

/John Rivell/
Primary Examiner, Art Unit 3753